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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,273	10/31/2003	Raffi Codilian	K35A1342	1629

35219 7590 06/28/2005

WESTERN DIGITAL TECHNOLOGIES, INC.  
20511 LAKE FOREST DR. -C205  
LAKE FOREST, CA 92630

EXAMINER

WONG, KIN C

ART UNIT PAPER NUMBER

2651

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/698,273	Applicant(s) CODILIAN ET AL	
	Examiner K. Wong	Art Unit 2651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/31/03</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims (1-11) are rejected under 35 U.S.C. 103(a) as being unpatentable over Squires et al (4979055) in view of Tuttle et al (6108151).

Regarding claim 1: Squires et al discloses a procedural for a servo channel head gain calibration in a disk drive (see col. 24, line 44 to col. 25, line 56 of Squires et al). Squires et al is silent on the servo channel head gain calibration for the zoned servo channel head gain calibration. Tuttle et al is relied on for the teaching of the servo channel head gain calibration for the zoned servo channel head gain calibration (see col. 5, lines 49-61 and col. 11, line 66 to col. 12, line 3 of Tuttle et al).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the servo channel head gain calibration procedure of Squires et al to include the servo channel head gain calibration for the zoned servo channel head gain calibration as taught by Tuttle et al. the rationale is as follows: one ordinary skill in the art would have been motivated to provide an optimum gain settings for each of the zone as suggested in col. 11, line 66 to col. 12, line 3 of Tuttle et al.

Regarding claim 2: the combination of Squires et al and Tuttle et al teaches that wherein the first pre-stored calibration value is obtained from a first pre-stored calibration value table (see col. 11, lines 48-50 of Tuttle et al).

Regarding claim 3: the combination of Squires et al and Tuttle et al teaches that wherein the first pre-selected zone is at a median radial location between a first zone in the plurality of concentric zones located closest to a center of the disk surface and a second zone in the plurality of concentric zones located farthest from the center of the disk surface (see col. 4, line 6 to col. 5, line 6 and col. 5, Lines 31-43 of Tuttle et al).

Regarding claim 4: the combination of Squires et al and Tuttle et al teaches that wherein the first pre-selected zone is a zone in the plurality of concentric zones located closest to a center of the disk surface (col. 4, line 61 to col. 5, line 6 of Tuttle et al).

Regarding claim 5: the combination of Squires et al and Tuttle et al teaches that wherein the first pre-selected zone is a zone in the plurality of concentric zones located farthest from a center of the disk surface (col. 4, line 61 to col. 6 of Tuttle et al).

Regarding claim 6: the combination of Squires et al and Tuttle et al further teaches that the performing of the first servo channel head gain calibration process for each zone in the plurality of zones if the first comparison result exceeds the threshold value (col. 5, lines 44-62 of Tuttle et al).

Regarding claim 7: the combination of Squires et al and Tuttle et al considers that further including the performing of the first servo channel head gain calibration process for a subset comprising at least two of the plurality of zones if the first

comparison result exceeds the threshold value are known in the references because Tuttle et al describes the similar function (in col. 5, lines 44-62 of Tuttle et al).

Regarding claim 8: the combination of Squires et al and Tuttle et al teaches that wherein the threshold value corresponds to a pre-selected deviation of the first head gain calibration value from the first pre-stored calibration value (col. 15, lines 31-56 of Tuttle et al).

Regarding claim 9: the combination of Squires et al and Tuttle et al considered that wherein the pre-selected deviation is a ten percent deviation of the first head gain calibration value from the first pre-stored calibration value are known in the references because Tuttle et al describes the ratio or percent of the deviation of the calibrated value as the deviation (in col. 16, lines 39-51 of Tuttle et al).

Regarding claim 10: the combination of Squires et al and Tuttle et al considered that wherein the disk drive includes a plurality of heads and a plurality of disks each having at least one disk surface, wherein the procedure further includes: selecting a second disk surface; initiating a second servo channel head gain calibration process for a second head corresponding to the selected second disk surface; obtaining a second head gain calibration value for a pre-selected zone in the selected second disk surface; comparing the obtained second calibration value with a second pre-stored calibration value for the pre-selected zone and generating a second comparison result; and stopping the second calibration process for the second head if the second comparison result does not exceed the threshold value are known in the references because Squires

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et al discloses plural heads (in col. 4, lines 42-43 of Squires et al) which plural calibrations are required.

Regarding claim 11: the combination of Squires et al and Tuttle et al teaches that further including of the repeating of the selecting, the initiating, the obtaining, the comparing and the stopping for each head in the plurality of heads (in col. Lines 42-43 of Squires et al).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dobbek (6587300) is cited for calibration of the servo parameters.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Wong whose telephone number is (571) 272-7566.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is (571) 272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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